



# **OM Data Dictionary Update**

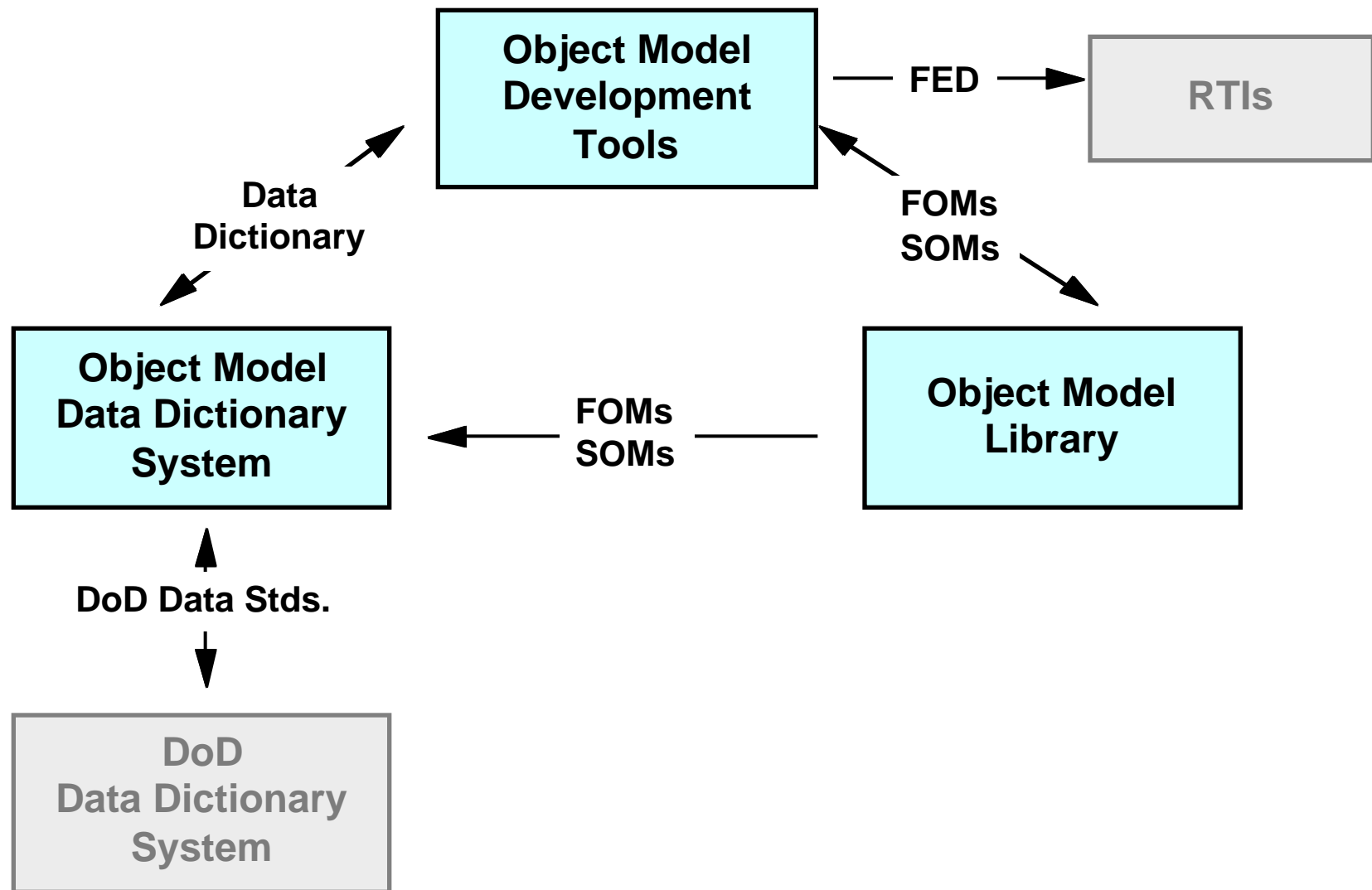
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**8 October 1997**

# HLA Object Model Tools

- **DMSO is providing an integrated suite of tools to support the development and management of HLA object models and OMDD contents:**
- **Object Model Development Tools (OMDTs)**
  - Editors for the creation and modification of FOMs and SOMs
- **Object Model Library (OML)**
  - A central repository to support the sharing and reuse of FOMs and SOMs
- **Object Model Data Dictionary System (OMDDS)**
  - A central repository of OMDD contents for use in creating FOMs and SOMs

# HLA Object Model Integrated Tools Suite



## **OM Library Status**

- **Part of the late-October OM Tools Release**
- **Positive comments from OM Tools Reviewers - ready for release**
- **New features include browse capability and enhanced search**
- **Currently populated with:**
  - **Real-time Platform Reference FOM**
  - **Engineering Federation FOM**
  - **Joint Training Confederation FOM**
  - **NASM/AP SOM**
  - **Joint Training Federation Protofederation FOM**
- **Additional FOMs planned for October release:**
  - **F-14D FOM (NAWC-TSD)**
  - **Countermine Component FOM (Army / NVESD)**
- **December release will address OMT 1.2 updates**

# Object Model Data Dictionary System Status

- **Products under development:**
  - HLA Object Model Data Dictionary (OMDD) - A collection of components to use in the creation of HLA FOMs and SOMs
  - HLA Object Model Data Dictionary System (OMDDS) - A web-based application to support the development and use of the OMDD contents
  - HLA Object Model Data Dictionary Data Interchange Format (OMDD DIF) - A structured ASCII text format for the interchange of OMDD contents
- **Core functionality of the user interface (search, browser, export DIF) nearly completed**
- **Functionality to view mappings of OMDD contents to the OML and DDS under development**
- **Release in December or May, depending on OMDD Experiment and early user feedback**

# OMDDS Contents

- **OMDD Elements:**
  - **Classes**
    - names, synonyms, definitions, and notes
  - **Generic elements (attributes and parameters)**
    - names, synonyms, definitions and notes
    - data type, units of measure (multiple representations)
  - **Complex data types**
    - names, fields
  - **Enumerated data types**
    - names, enumerators, representations, and notes
  - **Interactions**
    - names, synonyms, and notes
- **Mappings between OMDD elements and external data standards**
- **Mappings between OMDD elements and object models**

# **Object Model Data Dictionary Population Status**

- **Current efforts focused on population of OMDD elements based on RPR FOM requirements**
  - **Contents to be used in OMDD Experiment**
  - **Population expected to be completed by 31 October**
- **OMDD population focus will then include integration of requirements from:**
  - **Engineering Federation FOM**
  - **Joint Training Confederation FOM**
- **Estimated volume of OMDD elements based on all three FOMs:**
  - **80 object classes**
  - **40 interaction classes**
  - **225 generic elements**
  - **200 enumerated data types**
  - **30 complex data types**

# OMDD Experiment

- **Purpose - To provide practical experience in**
  - Use of the OMDD elements in building FOMs
  - Use of the OMDDS to select OMDD elements for FOM construction
  - Use of the OMDTs to build FOMs from OMDD elements
- **Schedule**
  - Start November 1997
  - Complete February 1998
- **Participants**
  - DMSO - Sponsor
  - STRICOM - COR
  - SAIC Orlando - Experiment lead
  - ARL:UT - OMDDS / OMDD support
  - AEGIS Research - OMDT support
  - JHU/APL - OMT support / OM tools integration

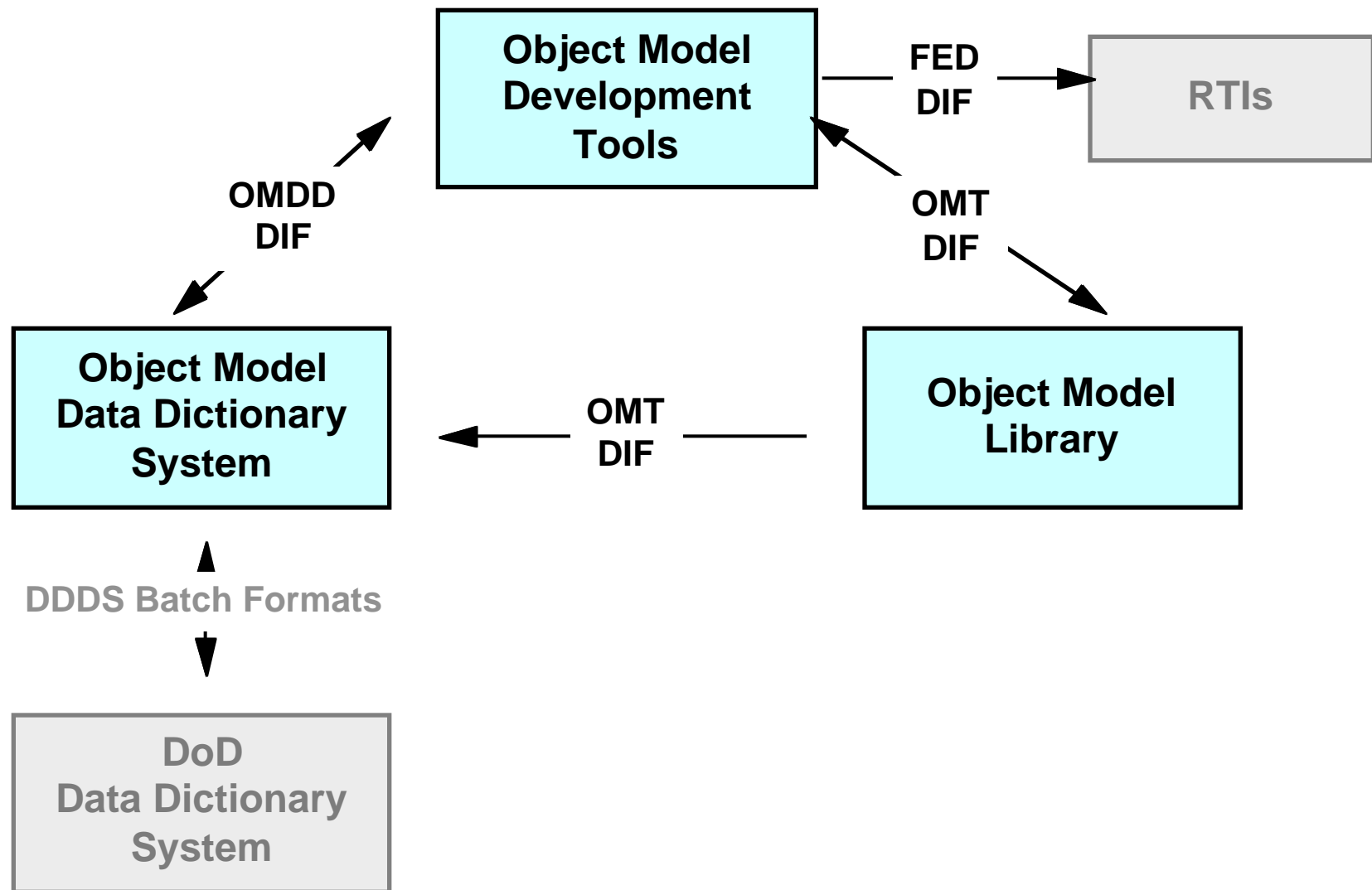
# OMDD Experiment Approach

- **FOM goals - use a Bridge Federate to provide connectivity between a ModSAF-based fedex and a CCTT SAF-based fedex**
- **FOM development approaches to be examined**
  - **Bottom-up**: start with conceptual model and a “clean sheet”
  - **Merge SOM**: start with the SOMs for the existing federates
  - **Single SOM**: start with one of the federate’s SOMs and build up
  - **Similar federation**: start with an existing FOM for an similar federation
  - **Reference FOM**: begin with a community view for a FOM (RPR FOM)
- **OMDD will have the biggest impact in the bottom-up approach, but will be used in all five approaches.**

# OMDT Support for the OMDD Experiment

- **New capabilities to be prototyped for the AEgis OMDT to integrate with the OMDD:**
  - **Read OMDD DIF files**
  - **Copy OMDD classes into an FOM/SOM**
  - **Copy OMDD interactions into an FOM/SOM**
  - **Copy OMDD generic elements into an FOM/SOM**
    - **as attributes and/or parameters**
    - **select from multiple representations**
  - **Copy OMDD complex data types into a FOM/SOM**
  - **Copy OMDD enumerated data types into a FOM/SOM**
  - **Export selected FOM/SOM classes, interactions, attributes, parameters, complex data types, and enumerated data types in OMDD DIF format**

# Object Model Data Interchange Formats



# DIF Development

- **OMT DIF**
  - Provides an exchange format for whole FOMs and SOMs
  - Version 1.1 published February 97, updated 3 October to include MOM information in support of RTI 1.0
  - Version 1.1 used by the October tools releases
  - Version 1.2 to support OMT 1.2 and RTI 1.1 MOM
  - Version 1.2 to be published by 31 October, used in December 97 tool releases
- **OMDD DIF**
  - Provides an exchange format for OMDD elements
  - To be used for OMDD experiment (OMDDS / OMDT integration)
  - Version 1.0 to be published by 30 November
- **FED DIF**
  - Provides an exchange format for non-RTI-specific initialization data
  - Version 1.0 to be published by 30 November

**Object Model Library Demo**

**Object Model Data**

**Dictionary System Demo**